

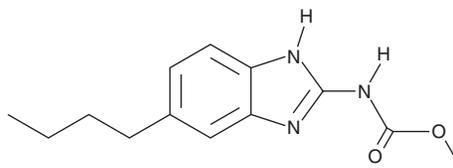
# PRODUCT INFORMATION



## Parbendazole

Item No. 34754

**CAS Registry No.:** 14255-87-9  
**Formal Name:** N-(6-butyl-1H-benzimidazol-2-yl)-  
carbamic acid, methyl ester  
**Synonyms:** PBZ, SKF 29044  
**MF:** C<sub>13</sub>H<sub>17</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 247.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 210, 246, 287, 293 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Parbendazole is supplied as a solid. A stock solution may be made by dissolving the parbendazole in the solvent of choice, which should be purged with an inert gas. Parbendazole is slightly soluble in dimethyl formamide.

### Description

Parbendazole is an inhibitor of microtubule assembly (EC<sub>50</sub> = 3 μM).<sup>1</sup> It reduces viability of HeLa cells (EC<sub>50</sub> = 0.53 μM) and induces genotoxic stress in a reporter assay using HEK293 cells.<sup>2</sup> Parbendazole reduces, but does not eradicate, worm burden in goats with naturally acquired or experimental nematode infections when administered at a dose of 15 mg/kg.<sup>3</sup> It is teratogenic to lamb embryos when administered to pregnant ewes at a dose of 60 mg/kg during the third week of pregnancy.

### References

1. Havercroft, J.C., Quinlan, R.A., and Gull, K. Binding of parbendazole to tubulin and its influence on microtubules in tissue-culture cells as revealed by immunofluorescence microscopy. *J. Cell Sci.* **49**, 195-204 (1981).
2. Lo, Y.-C., Senese, S., France, B., *et al.* Computational cell cycle profiling of cancer cells for prioritizing FDA-approved drugs with repurposing potential. *Sci. Rep.* **7(1)**, (2017).
3. Charles, T.P., Pompeu, J., and Miranda, D.B. Efficacy of three broad-spectrum anthelmintics against gastrointestinal nematode infections of goats. *Vet. Parasitol.* **34(1-2)**, 71-75 (1989).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/07/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM